

Remarks

The Office Action dated July 28, 2009 has been carefully considered. Claim 20 has been amended without the addition of new matter. Claims 21-24 are newly added without the addition of new matter. Applicants respectfully request reconsideration of the current claims in view of the following remarks.

Claim Rejections – 35 USC § 103

In Paragraph 4 of the Office Action, claims 1-9, 13, and 15-20 are rejected under 35 USC 103(a) as being unpatentable over Henriquez (US 4,840,737) in view of Bastiaensen et al. (WO 00/01657, as translated by US 6,541,665) or, alternatively, Bastiaensen et al. (WO 00/01657, as translated by US 6,541,665) in view of Henriquez (US 4,840,737).

The Office Action states that Henriquez's failure to disclose the diameter of the column is inconsequential as, allegedly, the specification is silent as to unexpected results stemming from the size of the column. However, the specification clearly states that it is "[d]ue to this dimensioning of the Second Region [that the] complex fluid mechanic of the wash material [can be] taken into account advantageously." ¶[0035]. Henriquez fails to teach or suggest the diameter of the column which is identified as an element of the invention. Bastiaensen et al. does not cure this deficiency.

Additionally, Henriquez does not disclose a Third Region as recited in the present application. Henriquez discloses a space (25) in which the compacted bed forms. See Fig. 1. The bed has a "wash front" (30), but the washing liquid is not supplied until the space (28) which is past the disintegrator (26) such as a grid in the form of a perforated plate or wire gauze. Id.

Henriquez does not disclose a separate region for melting the wash material as recited in claims 1 and 13. The disclosure that the disintegration may be accomplished by melting (Col. 1, ll. 26-27), does not cure this deficiency. Bastiaensen et al. does not cure this deficiency.

Bastiaensen et al. discloses a process for the purification of acrylic acid. Abstract. Bastiaensen et al. discloses the use of melting the crystals in order to remove them from the apparatus where they became affixed during separation. Col. 5, ll. 39-48. Bastiaensen et al. additionally discloses the use of local melting of contaminated regions, which can be combined with washing. Col. 5, ll. 15-20. The “local melting” disclosed by Bastiaensen et al. does not teach or suggest a Third Region within a washing apparatus in which wash material is melted as recited in claims 1 and 13. Neither does Bastiaensen et al.’s disclosure of “a combination of washing and sweating in one apparatus” teach or suggest the First Region, Second Region, and Third Region as recited in claims 1 and 13. The combination of one apparatus having washing and sweating as disclosed by Bastiaensen et al. with the disintegrator which may be heated as disclosed by Henriquez does not produce the current invention as neither teaches or suggests a Third Region as recited in claims 1 and 13. Neither Henriquez nor Bastianesen et al., alone or in combination, teach, suggest or disclose the elements of the present invention.

In light of the above arguments, Applicants respectfully requests the examiner withdraw the rejection of claims 1-9, 13, and 15-20.

In Paragraph 5 of the Office Action, claims 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriquez (US 4,840,737) in view of Bastiaensen et al. (WO 00/01657, as translated by US 6,541,665), as applied to claims 1, 4, and 13 above, and further in view of Meisenburg et al. (US 3,801,285).

The Applicants hereby incorporate the above arguments. Additionally, the screw conveyor taught in Meisenburg et al. is used to convey crystal paste through a heat exchanger. Col. 2, ll. 27-56. The conveying means recited in the current invention is located upstream of the First Region, before any heat exchanger would be present and before the compacted crystal bed in the Second Region. One having ordinary skill in the art would not combine the means for conveying crystal paste in a heat exchanger with Henriquez and/or Bastiaensen et al. Even if such elements were combined, such a combination would not disclose the current invention. Henriquez, Bastiaensen et al., and Meisenburg et al., alone or in combination, do not teach, suggest, or disclose all of the elements of the current invention.

In light of the above arguments, Applicants respectfully request that the examiner withdraw the rejection of claims 10, 11 and 14.

Conclusion

In light of the foregoing remarks and amendments to the claims, Applicants believe that the present application is now in condition for allowance, and such action is respectfully requested. If any issues remain unresolved, the Examiner is invited to telephone Applicants' counsel at the number provided below.

Respectfully submitted,

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Date: November 25, 2009

File No. 5003073.060US1

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